

**REMARKS**

Claims 26-50 are pending in the present application. In the Office Action mailed July 25, 2006, the Examiner rejected claim 50 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner next rejected claims 26-28, 30-47, 49, and 50 under 35 U.S.C. §103(a) as being unpatentable over Kemp (USP 4,531,045) taken with Gatfield (USP 3,992,565). Claims 29 and 48 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kemp taken with Gatfield as applied to claims 26-28 and 30-50 above, and further in view of Davis et al. (USP 4,561,059).

With respect to the rejection of claim 50 under § 112, the Examiner stated that “it is not clear what is meant by ‘an energize secondary voltage command’, making it unclear what structural limitations are associated with the claimed ‘controller.’” *Office Action*, 07/25/06, p. 2. Applicant believes that this term is clear as presented in claim 50 and further in light of the disclosure in the Specification. *See Specification*, ¶¶ 0024, 0040. One skilled in the art will readily appreciate that an “energize secondary voltage command” is simply a command to energize the secondary voltage. Accordingly, Applicant respectfully requests withdrawal of the §112 rejection of claim 50.

In rejecting claim 26, the Examiner indicated that Kemp teaches all elements thereof except “pulse transmission through a weld cable.” *Office Action*, 07/25/06, pp. 2-3. In regard to this lacking subject matter, the Examiner stated that “it would have been obvious that the weld cable 45 in Kemp [] include the control wires connected to the switch assembly 70 in view of the teachings of Gatfield.” *Id.* at p. 3. Gatfield teaches a welding jacket 11 which is comprised of a rubber-like coating surrounding a number of conductors and conduits connected in a welding system. Fig. 1; Col. 2, lns. 4-8. Within the welding jacket 11 of Gatfield, conductor annulus 13 transmits welding power from a power source to a weld, duct 14 conveys a consumable electrode, duct 19 contains a gas tube, and conductors 18 and 33 are control wires. Col. 2, lns. 27-36, 46-47, 53-56. It is control wires 18 and 33 which the Examiner has cited as teaching “pulse transmission through a weld cable.” *Office Action*, 07/25/06, p. 3. However, the arrangement of conductors and control wires taught by Gatfield corresponds to that shown in Fig. 1A of the Specification, and is distinguishable from the present invention. *See Specification*, ¶ 0004.

Applicant has amended claim 26 to more clearly recite the improvement of the present invention over the configuration cited by the Examiner in Gatfield. Claim 26 now recites that it is a welding power conductor, and not a separate control wire, over which the solitary rectangular

voltage pulse is transmitted. Claim 34 was also amended in accordance therewith. As such, Applicant believes that claim 26, and all claims depending therefrom are patentably distinct from the art of record. Applicant respectfully requests withdrawal of the rejections thereof.

Likewise, the Examiner rejected claim 38 over a combination of Kemp and Gatfield. Applicant has also amended claim 38 to make explicit what was previously implicit: a welding cable over which both the single rectangular pulse and a welding-type voltage are conducted. Since, as discussed above, Gatfield does not teach one conductor transmitting both control signals and welding-type voltage, claim 28 and all claims depending therefrom are believed to be patentably distinct from the art of record. Applicant therefore respectfully requests withdrawal of the rejections of claims 38-43.

Claim 44 recites a method for remotely controlling a power source that includes “automatically transmitting not more than one rectangular voltage pulse per activation of the trigger indicative of desired operational parameters of the power source through at least a weld cable.” The Examiner cited Kemp as teaching a “transmitter associated with the switch contacts of 70, transmitting a solitary rectangular pulse as shown in the top graph.” *Office Action*, 07/25/06, p. 2. However, the “top graph” of Fig. 3 which the Examiner has referred to shows gun switch “pulses” corresponding to the length of time an operator depresses the gun switch. *See* Fig. 3. Depending upon the timing of the switch depressions, a welding voltage will be supplied or interrupted via a contactor K1. Col. 3, lns. 29-43; col. 4, ln. 36 to col. 5, ln. 5. Thus, Kemp does not teach or suggest that these switch pulses are “indicative of desired operational parameters.” They merely turn on and off a predetermined welding voltage. Since Gatfield also does not specifically teach or suggest any such pulses, claim 44 is patentably distinct from the art of record. Accordingly, Applicant respectfully requests withdrawal of the rejection of claim 44 and of all claims depending therefrom.

Applicant has amended claim 50 to recite that the rectangular pulse is transmitted “over a welding power conductor” and that a welding voltage may be created thereacross. As such, Applicant believes that the art of record neither teaches nor suggests that which is claimed. Applicant therefore respectfully requests withdrawal of the rejection of claim 50 under § 103(a).

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 26-50.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

/Timothy J. Ziolkowski/

<sup>1</sup>Timothy J. Ziolkowski  
Registration No. 38,368  
Direct Dial 262-376-5139  
tjz@zpspatents.com

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**P.O. ADDRESS:**

Ziolkowski Patent Solutions Group, SC  
14135 North Cedarburg Road  
Mequon, WI 53097-1416  
262-376-5170

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<sup>1</sup> The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-2623. Should no proper payment be enclosed herewith, as by credit card authorization being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-2623. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extensions under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-2623. Please consider this a general authorization to charge any fee that is due in this case, if not otherwise timely paid, to Deposit Account No. 50-2623.